Notice of Allowability	Application No.	Applicant(s)	
	10/681,186	CHO ET AL.	
	Examiner	Art Unit	
	Phuong N. Hoang	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Interview and amendment*.

2. ☒ The allowed claim(s) is/are *26, 28 - 35, 37 -44; now renumbered as 1 - 17*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10/9/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Zachary S. Stern (Reg. No. 54,719) on 10/5/06.

3. Amend the claims in accordance to the attachment in the e-mail, filed by applicant.

REASON FOR ALLOWANCE

4. The drawings filed on 03/12/02 are accepted by the examiner.

5. The following is an examiner's statement of reasons for allowance:

The steps of a same type node data memory configured to store node data representing nodes included in agent systems of the same type as the original agent system and other agent systems of different type discriminately; a different type node data memory configured to store access data for each node included in the other agent

systems; a correspondence table configured to store correspondence data between each category of movement commands and each type of the other agent systems, when taken in the context of claims as a whole, is not uncovered by Wilkins and Lange. Moreover, evidence for the modifying the prior art teachings by one of ordinary skill level in the art was not uncovered so as to result in the invention as recited in claims 1, 35, and 44.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph
October 10, 2006

Claims 1-25 (Canceled).

Claim 26 (Currently Amended): An agent system for processing information by an agent having agent state data, the agent system as an original agent system being connected to a different type agent system through a network, comprising:

a wrapper class memory configured to store component data of wrappers corresponding to each type of other agent systems, the wrappers being for processing information in a corresponding agent system;

a same type node data memory configured to store node data representing nodes included in agent systems of the same type as the original agent system and other agent systems of different type discriminately;

a different type node data memory configured to store access data for each node included in the other agent systems;

a correspondence table configured to store correspondence data between each category of movement commands and each type of the other agent systems;

a movement request detector configured to detect a request for the agent to move to the different type agent system from the agent state data by referring to the correspondence data and the node data; and

a wrapper generator, in response to the request, configured to generate a wrapper corresponding to a type of the different type agent system based on the component data of the type stored in said wrapper class memory;

wherein, the wrapper generates a wrapped agent based on a component of the wrapper, and sends the wrapped agent to the different type agent system, the wrapped agent having the agent state data and the access data,

the wrapped agent executes the agent state data to use resources in the different type agent system, and returns the agent state data based on an execution result to the agent in the original agent system,

the agent continually executes the agent state data based on the execution result in the original agent system.

Claim 27 (Canceled).

Claim 28 (Currently Amended): The agent system according to claim [[27]]26, wherein said movement request detector detects a movement command to move to other node from a script of the agent state data, decides whether the other node is included in the other agent systems of different type by referring to said same type node data memory, and extracts a type of other agent system corresponding to the movement command by referring to said correspondence table if the other node is included in the other agent systems of different type.

Claim 29 (Previously Presented): The agent system according to claim 28, further comprising:

a retrieval unit configured to retrieve the component data of a wrapper corresponding to the type of other agent system extracted by said movement request detector from said wrapper class memory,

wherein said wrapper generator extracts the access data for the other node as a movement destination node from said different type node data memory after generating the wrapper, supplies the access data to the wrapper.

Claim 30 (Previously Presented): The agent system according to claim 29, wherein the wrapper comprises:

a different type movement memory configured to store movement data of the agent between the different type agent system and another agent system; and

a movement source return memory configured to store return data of the agent from the different type agent system to the original agent system.

Claim 31 (Previously Presented): The agent system according to claim 30,

wherein the wrapper supplies the movement data and the return data to the wrapped agent in the different type agent system through an external communication unit.

Claim 32 (Previously Presented): The agent system according to claim 31, wherein the wrapped agent comprises:

an agent state memory configured to store the agent state data including the script;

a movement unit configured to store the movement data;

a return unit configured to store the return data; and

a controller configured to execute action of the wrapped agent according to the data stored in said agent state memory, said movement unit and said return unit.

Claim 33 (Previously Presented): The agent system according to claim 32, wherein, if the action of the wrapped agent fails in the different type agent system, said return unit indicates the agent in the original agent system to execute the same action.

Claim 34 (Previously Presented): The agent system according to claim 32, wherein, if a movement command to a movement source node is detected from the script of the agent

state data, said return unit returns a function of the wrapped agent to the agent of the movement source node in the original agent system.

Claim 35 (Currently Amended): A method for processing information by an agent having agent state data, the agent system as an original agent system being connected to a different type agent system through a network, comprising:

storing component data of wrappers corresponding to each type of other agent systems, the wrappers being for processing information in a corresponding agent system;

discriminately storing node data representing nodes included in agent systems of the same type as the original agent system and other agent systems of different type;

storing access data for each node included in the other agent systems;

storing correspondence data between each category of movement commands and each type of the other agent systems;

detecting a request for the agent to move to the different type agent system from the agent state data by referring to the correspondence data and the node data;

generating a wrapper corresponding to a type of the different type agent system based on the stored component data of the type in response to the request;

generating a wrapped agent based on a component of the wrapper, the wrapped agent having the agent state data and the access data;

sending the wrapped agent to the different type agent system;

in the wrapped agent,

executing the agent state data ~~in the wrapped agent~~ to use resources in the different type agent system, and

returning the agent state data based on an execution result to the agent in the original agent system; and

in the agent,

continually executing the agent state data in the agent based on the execution result ~~of the wrapped agent~~ in the original agent system.

Claim 36 (Canceled).

Claim 37 (Currently Amended): The method according to claim [[36]]35, further comprising:

detecting a movement command to move to other node from a script of the agent state data;

deciding whether the other node is included in the other agent systems of different type by referring to the stored node data; and

extracting a type of other agent system corresponding to the movement command by referring to the stored correspondence data if the other node is included in the other agent systems of different type.

Claim 38 (Previously Presented): The method according to claim 37, further comprising:

retrieving component data of a wrapper corresponding to the type of other agent system from the stored component data;

extracting access data for the other node as a movement destination node from the stored access data after generating the wrapper; and

supplying the access data to the wrapper.

Claim 39 (Previously Presented): The method according to claim 38, further comprising:

storing movement data of the agent between the different type agent system and another agent system in the wrapper; and

storing return data of the agent from the different type agent system to the original agent system in the wrapper.

Claim 40 (Previously Presented): The method according to claim 39,

in the wrapper, further comprising:

supplying the movement data and the return data to the wrapped agent in the different type agent system through an external communication unit.

Claim 41 (Previously Presented): The method according to claim 40, further comprising:

storing the agent state data including the script in the wrapped agent;

storing the movement data in the wrapped agent;

storing the return data in the wrapped agent; and

executing action of the wrapped agent according to the stored data.

Claim 42 (Previously Presented): The method according to claim 41, further comprising:

indicating the agent in the original agent system to execute the same action, if the action of the wrapped agent fails in the different type agent system.

Claim 43 (Previously Presented): The method according to claim 41, further comprising:

returning a function of the wrapped agent to the agent of the movement source node in the original agent system, if a movement command to a movement source node is detected from the script of the agent state data.

Claim 44 (Currently Amended): A computer program product, comprising:

a computer readable program code embodied in said product for causing a computer to process information by an agent having agent state data, the agent system as an original agent system being connected to a different type agent system through a network, said computer readable program code comprising:

a first program code to store component data of wrappers corresponding to each type of other agent systems, the wrappers being for processing information in a corresponding agent system;

a second program code to discriminately store node data representing nodes included in agent systems of the same type as the original agent system and other agent systems of different type;

a third program code to store access data for each node included in the other agent systems;

a fourth program code to store correspondence data between each category of movement commands and each type of the other agent systems;

a ~~second~~ fifth program code to detect a request for the agent to move to the different type agent system from the agent state data by referring to the correspondence data and the node data;

a ~~third~~ sixth program code to generate a wrapper corresponding to a type of the different type agent system based on the stored component data of the type in response to the request;

a ~~fourth~~ seventh program code to generate a wrapped agent based on a component of the wrapper, the wrapped agent having the agent state data and the access data;

~~a fifth~~ an eighth program code to send the wrapped agent to the different type agent system;

a ~~sixth~~ ninth program code for the wrapped agent to execute the agent state data to use resources in the different type agent system;

a ~~seventh~~ tenth program code for the wrapped agent to return the agent state data based on an execution result to the agent in the original agent system; and

an ~~eighth~~ eleventh program code for the agent to continually execute the agent state data based on the execution result in the original agent system.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100